

### County Research on Plastic versus Paper Bags for Yard Waste Collection

#### Introduction

Many of the jurisdictions that have implemented bans on plastic bags are facing legal mandates from their state governments. Waste Age reports that 23 states ban or severely restrict the disposal of yard waste in landfills (including Arkansas, Maryland, Massachusetts, Missouri, and North Carolina). The other options are composting and source reduction. Some localities have found they can reduce the tipping fees they pay to private landfills by taking yard waste to compost facilities. In both situations, the compost facilities often do not accept plastic bags, and the localities must therefore ban them. Some jurisdictions see the use of paper bags as the best choice, environmentally. For other jurisdictions, the requirement of the paper bag encourages source reduction and reduces the amount of yard waste put at the curb for collection. This can have a positive impact on the environment and program costs. The additional requirement of a special bag or sticker purchased from the municipality—effectively, a pay-as-you-throw (PAYT) yard waste program—can further encourage source reduction, help control costs, and create a more equitable fee structure.

#### What are the longer term risks of continuing to collect waste in plastic bags?

- Loudoun Composting could institute a ban on plastic bags. If this happens, Fairfax County will be forced to find an alternative disposal facility or institute a policy change. Options include:
  - Institute a ban on plastic bags for yard waste and develop a system for collection.
  - Find another facility which will accept plastic in yard waste.
- If local yard waste processing facilities institute bans on plastic bags, Fairfax County may be forced to require that patrons of our system not use plastic bags.
- If other local jurisdictions institute a ban on plastic bags, they may receive processing capacity commitments from the composting facilities, i.e., there would be no room for plastic bags on a first come first served basis.
- Compost facilities would likely charge more for material delivered that includes plastic bags. There are hard costs associated with bag removal and contaminants in the end product, thus increasing costs of processing and decreasing the value of the finished product. The diminished value of the end product due to plastic contamination has a negative effect on the economics of the composting operation that could result in increased tip fees.

#### What is the cost of the bags?

- Many retailers charge, on average, \$2.50 for 5 bags, or 50¢ each. Home Depot's website, [www.homedepot.com](http://www.homedepot.com), lists \$2.06 for 5, or 41.2¢ each. Home Depot on West Ox Road in Fairfax sells them for \$1.98 for 5.
- Town of Middletown, MD, provided the following information:
  - 33.5¢ per plain bag, minimum order 20,000 (quote for 2004)
  - 40.1¢ per printed bag, minimum order 10,000 (quote for 2004)
  - 38.4¢ per bag for 10,000 plain bags (price paid in 2003)

## Solid Waste Task Force Questions

1. Is there a reduction in truck trips?

In our system, likely there would be a reduction in truck trips – so that material collected curbside could be done in one pass. However, this is somewhat dependent on the ability of the Compost Facility to incorporate brush and woody debris into the process.

2. Does less than 25% of the yard waste collected in containers other than plastic bags end up in landfills?

Yes, a telephone survey of yard waste composting facilities indicated that between 10 and 15% might be rejected if delivered in containers other than plastic bags. One small facility said they had no rejects.

3. Is it easier to handle the yard waste in paper bags?

The answer depends upon whom you ask. Residential customers may resist the idea for a number of reasons such as cost, preference for another bag type, rejection of the hauler to collect, resistance to change, etc. Haulers may approve of the use of paper bags since the bags would verify that they contain yard debris. The composting facility operator would definitely approve of the use of paper bags since it would eliminate this contamination problem that can severely negatively impact the sales price of the compost which works to increase overall tip fees.

4. What is the timeline of the local processor(s) for phasing out yard waste in plastic bags?

So far, none have indicated they will absolutely ban – but all seem to encourage eliminating plastic bags. The very recent increase in tip fees from local composting facilities may be seen as the first step in formalizing the elimination of plastic bags from the processing operation.

5. What is the County's contingency plan if the local processor(s) refuses to accept yard waste in plastic bags?

We would adapt as required.

Below is a table of various jurisdictions that do not pick up yard waste in plastic bags. The options available to residents for setting out yard waste at the curb are indicated with ✓. For more detail, see below, “Examples from other jurisdictions.”

Method of set out Jurisdiction Name	City of Bettendorf, IA	City of Cheektowaga, NY	City of Chula Vista, CA	Clinton Township, MI	City of Columbus, OH	City of Dublin, OH	City of Durham, NC	City of Fairfax, VA	City of Falls Church	City of Fayetteville, AR	City of Grand Rapids, MI	Town of Herndon, VA	City of Kirkwood, MO	Town of Middletown, MD	City of Midland, MI	County of Montgomery, MD	City of New Rochelle, NY	City of Pickering, Ontario, Canada	City of Rossford, OH	Town of Shrewsbury, MA	City of Toronto, Ontario, Canada	City of Trenton, MI	Upper Dublin Township, PA	City of York, PA
Special bags purchased from municipality/hauler				✓			✓				✓		✓	**					✓			*		✓
Stickers/tags required for pick up	✓			✓					✓		✓		✓		✓				✓					
Special cart or bin purchased from/ provided by municipality			✓				✓				✓				✓						✓			✓
Self-purchased, reusable containers allowed (either marked or sticker)		✓	✓	✓	✓	✓		✓		✓		✓				✓	✓	✓		✓	✓	✓	✓	

\* Trenton requires a plastic mesh bag, purchased from the City for \$1.50. Paper and plastic bags are not allowed.

\*\* Paper bags are supplied by Middletown for free. Residents may use bags they purchase from retailers, too.